# HKIE Certification of BIM Qualification

## 1.  Introduction

### 1.1  HKIE BIM Certification Scheme

The certification system serves as a means for prospective candidates to meet the eligibility criteria for inclusion in the "Engineering BIM Professional (Eng BIM Pro)" or "Engineering BIM Coordinator (Eng BIM Coord)" register of The Hong Kong Institution of Engineers (HKIE), with the aim of enhancing the capacity and competence of HKIE members in the utilisation of BIM for building and engineering undertakings.  This is in response to the escalating need for BIM personnel, specifically for the roles of project BIM Team Leader and BIM Coordinator, as stipulated by the BIM Team Structure requirements under TC(W) No. 2/2021, as issued by the Development Bureau.

### 1.2  Objectives

The primary aims of certification are to guarantee that candidates possess the requisite training and practical experience, as well as a sufficient level of expertise in the professional application of BIM, which is deemed acceptable by HKIE for inclusion in the "Eng BIM Pro" or "Eng BIM Coord" register.  Additionally, the standards should be at least equivalent to those set forth by the Construction Industry Council (CIC) for certification as CCBM and CCBC.

### 1.3  Core Competencies of "Eng BIM Pro"

The Core Competencies of an "Eng BIM Pro" are:

i)   Possess the professional knowledge and expertise to serve as a BIM Team Leader in Engineering Practice, implementing BIM methodologies across various project stages.

ii)   BIM Initiation (Adeptness in initiating BIM application and spearheading the BIM process for projects and/or client organisations, comprehensively comprehending BIM concept definitions and scope, as well as BIM standards and guidelines within both the Hong Kong and global contexts; Ability to describe BIM concept definitions and scope, BIM standards and guidelines in the Hong Kong and global contexts). [Level 2]

iii)   BIM Software and Technologies (Proficiency in consulting or deciding on the BIM information production method and procedures; Ability to explain BIM software and the modelling process, and current and upcoming technologies). [Level 2]

iv)   BIM Uses and Processes (Proficiency in advising or deciding on the BIM Uses and BIM software applications to manage and handle information production and delivery; Ability to understand BIM uses and BIM software applications, and to design and manage the overall process of a BIM project). [Level 4]

v)   Digital Information Management, Collaboration and Integration (Competency in planning and executing the establishment of a Common Data Environment (CDE) solution and workflow to achieve quality information delivery; Ability to plan and execute the setting-up of a common data environment and data quality control system for effective use and sharing of digital information in a BIM project). [Level 4]

vi)   Commercial and Contractual Aspects (Expertise in advising on the financial and commercial considerations of BIM, as well as BIM-related contractual matters; Ability to describe commercial and financial issues of BIM as well as BIM-related contractual issues). [Level 2]

vii)   Communication Skills (Ability to apply effective interpersonal and communication skills in a variety of public and interpersonal settings, such as presentations, meetings, report/training material writing, etc.). [Level 4]

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## 1.4   Core Competencies of "Eng BIM Coord"

The Core Competencies of an "Eng BIM Coord" are:

i)   Possess the knowledge and capabilities in their respective engineering disciplines, functioning as an Eng BIM Coordinator in projects to facilitate horizontal coordination of project information between parties and disciplines, as well as vertical coordination between professionals and BIM technicians, across various project stages.

ii)   BIM Initiation (Ability to describe BIM concept definitions and scope, BIM standards and guidelines in Hong Kong and global contexts). [Level 2]

iii)   BIM Software and Technologies (Ability to operate BIM software and the modelling process, and describe current and relevant technologies). [Level 3]

iv)   BIM Uses and Processes (Ability to understand BIM uses, apply BIM software applications, and to execute and administer the responsible BIM tasks for individual or cross-disciplinary BIM project coordination). [Level 3]

v)   Digital Information Management, Collaboration and Integration (Competency in managing a Common Data Environment (CDE) solution and workflow in the day-to-day project information management process; Ability to execute and administer the operation of a CDE and data quality control system for effective use and sharing of digital information in a BIM project). [Level 3]

vi)   Communication Skills (Ability to apply interpersonal and communication skills in meetings, report/training material writing, etc.). [Level 3]

vii)   BIM Information Exchange knowledge (Ability to handle the exchange of BIM information between parties with an emphasis on quality).

# 2.   Eligibility

## 2.1   Eng BIM Pro

| Eng BIM Pro | |
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| Qualifications | Corporate Members of the HKIE (FHKIE/ MHKIE) |
| Recognised Practical BIM Experience | Candidates should have no less than TWO YEARS of BIM working experience in the past five years (including at least six months in Hong Kong) in the execution and management of BIM projects, such as in the development of BIM standards, planning, design, contract administration etc., plus the execution of BIM projects, counting up to the application form submission date. |
| BIM Training | Successful completion of CIC-Accredited "Certificate for Building Information Modelling Manager" (EG424129Q) offered by the Vocational Training Council with content tailor-made for the HKIE members. |
| Submission of Supporting Document | 1. Completed and signed Application Form for Certification of Engineering BIM Professional (Eng BIM Pro) (FORM 1/EBP);<br>2. Completion certificate of CIC-Accredited "Certificate for Building Information Modelling Manager" offered by the Vocational Training Council with content tailor-made for the HKIE members;<br>3. Portfolio of BIM working experience with a statement between 1,500 and 2,500 words on all core competencies, including key project information, the applicant's role and BIM tasks accomplished |

| Eng BIM Pro | |
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| | (incorporated in the application form).  Each BIM project experience is to be certified by a FHKIE/MHKIE in the Employer organisation who has knowledge or understanding of the applicant's work; and<br>4. Curriculum Vitae. |
| Acceptance Requirements | 1. Submitted document accepted by the Assessors; and<br>2. Passing an Interview arranged by HKIE to assess whether the applicant possesses the core competencies as stated in 1.3 and the required practical experience. |
| Application Fee | HK$1,000<br>(All payment received are non-refundable and non-transferable) |

## 2.2　Eng BIM Coord

| Eng BIM Coord | |
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| Qualifications | Corporate Members of the HKIE (FHKIE/ MHKIE) or Associate Members of the HKIE |
| Work Experience | Have at least three years of full-time relevant work experience (with at least six months stationed in Hong Kong) |
| Recognised Practical BIM Experience | Candidates should have no less than ONE YEAR of BIM working experience in the past five years (including at least six months in Hong Kong) in feasibility and planning, design, project coordination & administration etc., plus operation of the BIM project CDE, counting up to the application form submission date. |
| BIM Training | Successful completion of:<br>(i) CIC-Accredited "Building Information Modelling for BIM Coordinator" (CON4185X) offered by the Vocational Training Council with content tailor-made for the HKIE members; AND<br>(ii) (a) BIM software/ platform training course in operation level as recognised by CIC, OR (b) possession of any certification of BIM software in operation level issued by respective software developers OR any equivalent as accepted by CIC.<br><br>For CIC recognised BIM software/platform training course in operation level, please refer to the list of Construction Innovation and Technology Fund (CITF) preapproved BIM Training Course available on website of CITF (http://www.citf.cic.hk/?route=search).  Skill Level: 2 to 3 is expected (except for CIC-accredited BIM Coordinator Course in the list). |
| Submission of Supporting Document | 1. Completed and signed Application Form for Certification of Engineering BIM Coordinator (Eng BIM Coord) (Form 1/EBC);<br>2. Completion certificate of:<br>(i) CIC-Accredited "Building Information Modelling for BIM Coordinator" (CON4185X) offered by the Vocational Training Council with content tailor-made for the HKIE members; AND<br>(ii) (a) BIM software/ platform training course in operation level as recognised by CIC, OR (b) BIM software in operation level issued by respective software developers OR any equivalent as accepted by CIC; |

| Eng BIM Coord | |
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| | 3. Portfolio of BIM working experience with a statement not exceeding 2,000 words in total on all core competencies, including key project information, the applicant's role and BIM tasks accomplished (incorporated in the application form).  Each BIM project experience is to be certified by a FHKIE/MHKIE in the Employer organisation who has knowledge or understanding of the applicant's work;<br>4. Curriculum Vitae; and<br>5. Proof of three years of full-time relevant work experience (with at least six months stationed in Hong Kong). |
| Acceptance Requirements | 1. Submitted document accepted by the Assessors; and<br>2. Passing an Interview arranged by HKIE to assess whether the applicant possesses the core competencies as stated in 1.4 and the required practical experience. |
| Application Fee | HK$500<br>(All payment received are non-refundable and non-transferable) |

# 3. Review of Interview / Assessment Results and Handling of Appeal

In the event of an unsuccessful Interview/Assessment outcome, a candidate has the option to request a review of their result by submitting a written application to the HKIE Professional Certification Committee (PCC) within 14 calendar days of the announcement of results (excluding the day of the announcement), accompanied by an application fee of $930, and providing brief grounds for review.  Late appeals will not be considered.

The applicant must demonstrate, through sufficient evidence, that there is justification for such an application.  The PCC shall review the case and make a recommendation to the Qualification & Membership Board.  Successful appeals will be refunded in full.

# 4. Renewal of Registration

The HKIE Council shall maintain a Registry for Eng BIM Pro and Eng BIM Coord, which shall be accessible to the public for review via the HKIE website.

HKIE members listed as Eng BIM Pro or Eng BIM Coord shall remain on the registry upon annual renewal of their HKIE membership, provided that they have completed 12 hours of Continuing Professional Development (CPD) related to BIM.  No additional annual membership fee for Eng BIM Pro and Eng BIM Coord is required.

# 5. Streamlined procedure for assessment of Eng BIM Pro as CIC-Certified BIM Manager (CCBM) and Eng BIM Coord as CIC-Certified BIM Coordinator (CCBC)

Applicants for Eng BIM Pro may apply for CIC-Certified BIM Manager (or Eng BIM Coord for CIC-Certified BIM Coordinator) under a streamlined assessment procedure as follows:

i) For Eng BIM Pro or Eng BIM Coord applicant who has chosen to apply for CCBM or CCBC under the streamlined assessment, his/her application documents will be copied to CIC for streamlined assessment.  Members need not submit a separate application to CIC for CCBM/CCBC, nor will they be required to undergo additional interviews by the CIC BIM Assessment Panel unless the documentary evidence is found to be unclear.  CIC will notify the Eng BIM Pro/Eng BIM Coord directly upon approval by the CIC Building Information Modelling Certification and Accreditation Board (BIMCAB) to be CCBM/CCBC.

ii) To avoid duplication in assessment, the approval/disapproval of Eng BIM Pro and CCBM, and Eng BIM Coord and CCBC respectively will be bundled, i.e., applicants will be approved/disapproved by HKIE as Eng BIM Pros or Eng BIM Coords with the same outcome of approval/disapproval of CCBMs or CCBCs respectively by the CIC BIM Certification and Accreditation Board (BIMCAB).

iii) The application fee for Eng BIM Pro or Eng BIM Coord will cover the application fee required by CIC for CCBM or CCBC such that the candidate shall not be charged the application fee for CCBM/CCBC by CIC.

iv) Renewal of CCBM/CCBC will be separately submitted to and processed by CIC.  The renewal procedure, fee payment and any appeal in respect of the renewal of CCBM or CCBC will be handled by CIC directly.